



## Centsable 45 mm Contactor Specifications

# 45 MM CENTSABLE CONTACTOR SPECIFICATIONS

## 45mm Centsable Contactor Specification Guide

Insulation Voltage	AC	(V)	600 Volts AC			
Ampere Rating	Max. I.E. Amps (AC3) <sup>note 1</sup>	(A)	9	12	16	25
	AC1 Thermal Current (800V) <sup>note 2</sup>	(A)	30	30	40	45
Maximum Power (hp) of Three-Phase Motors	200V	(HP)	2	3	3	7.5
	230/240V	(HP)	3	3	5	7.5
	460/480V	(HP)	5	7.5	10	15
	575V	(HP)	7.5	10	15	20
Maximum Power (hp) of Single-Phase Motors	115V	(HP)	.5	.5	1	2
	230/240V	(HP)	1	2	3	3
Maximum Power (kW) of Three-Phase Motors AC3 Category <sup>note 1</sup>	230/240V	(kW)	2.2	3	4	6.5
	400V	(kW)	4	5.5	7.5	11
	440/480V	(kW)	4.7	6.4	9	12.5
	500V	(kW)	5.5	7.5	10	11
	690V	(kW)	5.5	7.5	7.5	11
Short Circuit Protection Fuses Class J UL Rated Fuses	Type 2 Coordination <sup>note 3</sup>	(A)	20	25	32	40
Auxiliary Contacts Electrical Capacity			A600 <sup>note 4</sup>			
Coil Voltage Operating Lights			A.C. Pick-up 85-110% rated control voltage / A.C. Drop-out 20-75% rated control			
Average Coil Power Requirements / Coil Current (A) = VA/Coil Voltage			A.C. Pick-Up (VA) 80-100 / A.C. Sealed (VA) 9-12			
Power Factor			Pick-up .85 / Sealed .85			
Coil Operating Time at Rated Coil Voltage			Pick-up (mS) 10-25 / Drop-out (mS) 6-18			
Maximum Operating Frequency (No-Load Operation)			3000 operations / hour			
Mechanical Durability			10,000,000 operations			
Electrical Durability			1,000,000 operations			
Operating Ambient Temperature			-25 to +55C (-13 to +131F)			
Electrical Protection Degree			IP20 (IP10 for power entry cables)			
Mounting			Screw or 35mm DIN rail			
Wire Sizes	Line / Load	10 AWG		8 AWG		
	Control & Auxiliary Contacts	#12-#14 AWG (standard recommended)				

## Notes:

- AC3 type loads consist of squirrel cage three-phase motors.
- AC1 non-inductive or slightly inductive loads. Typically resistive loads (i.e. furnaces, heaters, etc.)
- Type 2 coordination is a protection category for IEC 60947-4-1. Section 8.2.3.1 specifies that Type 2 coordination requires that, under short circuit conditions, the contactor or switch cause no danger to persons or installation and shall be suitable for further use. The risk of minor contact welding is possible.
- A600 is a NEMA rating given to switching devices. The A600 rating in particular is 10 amp continuous thermal current with a maximum 60 amp make current and a 5 amp break current at 600 volts AC. Consult NEMA ICS 3-1933, Rev 1 Table 1-4-1 for more detailed specifications.

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## Cutler-Hammer Contactor Specifications

## 45 mm Cutler-Hammer CE15 Contactor Specifications

Insulation Voltage	AC	(V)	690 Volts AC				
Ampere Rating	Max.UL Amps (AC3) <sup>note 1</sup>	(A)	7	10	12	18	25
	AC1 Thermal Current (600V) <sup>note 2</sup>	(A)	20	20	20	32	32
Maximum Power (HP) of Three-Phase Motors	200V	(HP)	1.5	2	3	5	8
	230/240V	(HP)	1.5	2	3	5	7.5
	480/480V	(HP)	3	5	7.5	10	15
		(HP)	5	7.5	10	15	20
Maximum Power (HP) of Single-Phase Motors	115V	(HP)	0.25	0.5	0.5	1	2
	230/240V	(HP)	0.5	1	2	3	3
Maximum Power (kW) of Three-Phase Motors AC3 Category <sup>note 1</sup>	230/240V	(kW)	1.1	1.5	2.2	4	5.5
	415/400V	(kW)	2.2	4	5.5	7.5	11
	500/500V	(kW)	2.2	4	5.5	7.5	11
	500V	(kW)	4	5.5	7.5	11	15
	600V	(kW)	1.5	2.2	4	5.5	7.5
Auxiliary Contacts Electrical Capacity			AC500 <sup>note 4</sup>				
Coil Voltage Operating Limits			A.C. Pick-Up 85-110% Rated Control Voltage / A.C. Drop-Out 20-75% Rated Control Voltage				
Average Coil Power Requirements / Coil current (A) = VA/Coil Voltage			A.C. Pick-Up (VA) 80-100 / A.C. Sealed (VA) 9-12				
Power Factor			Pick-Up .65 / Sealed .35				
Coil Operating Time at Rated Coil Voltage			Pick-Up (ms) 10-25 / Drop-Out (ms) 6-18				
Maximum Operating Frequency (No-Load Operation)			3000 Operations / Hour				
Mechanical Durability			10,000,000 Operations				
Electrical Durability			1,000,000 Operations				
Operating Ambient Temperature			-25 to +65C				
Electrical Protection Degree			IP20 (IP10 for GH15ET and GH15FT)				
Mounting			Screw or 35mm DIN Rail				
Wire Sizes	Line / Load	#10 - #14 AWG Stranded Recommended		#14 - #6 Stranded Recommended			
	Control & Auxiliary Contacts	#12 - #14 AWG (Stranded Recommended)					
Line/Load Tightening Torque	Nm (Inch Pounds)	7	7	7	15	15	

Notes:

1. AC3 type loads consist of squirrel cage three phase motors.

2. AC1 non-inductive or slightly inductive loads. Typically includes loads (for example, solenoids, etc.)

3. Type 2 construction is a protective category for IEC 60947-4-1. Section 8.3.6.1 specifies that Type 2 construction requires that under short circuit conditions, the contactor or starter shall withstand the effects of installation and shall be suitable for further use. The risk of minor contact welding is possible.

4. AC500 is a IEC44 rating given to switching devices. The AC500 rating in particular is 10amps continuous thermal current with a maximum 60 amp make current and a 6 amp break current at 120 volts AC.

NEMA ICS 5-1995, Sec. 1 Table 1-4-1 for more detailed specifications.

## Cutler-Hammer CE15 Series Contactor Part Numbers

IEC Frame Size	Cutler-Hammer Contactor Model	Part Number	Price	Number of Contacts			Coil Voltage and Frequency	Additional Contacts	
				Main	Auxiliary Contacts Included			Maximum Contact Block Arrangement	Type of Additional Contact Block
					N.O.	N.C.			
45 mm	CE16AN	CE16AN4AB	\$38.25	4			110-120VAC 50-60Hz	Up to two auxiliary contact blocks may be added to CE15 contactors (one per side).	Side mount CE15NS3 (1 N.O. and 1 N.C.) CE15NS3B (1 N.O. and 1 N.C.)
		CE16AN4BB	\$38.25	4			220-240VAC 50-60Hz		
	CE16BN	CE16BN4AB	\$39.00	4			110-120VAC 50-60Hz		
		CE16BN4BB	\$39.00	4			220-240VAC 50-60Hz		
	CE16CN	CE16CN4AB	\$48.75	4			110-120VAC 50-60Hz		
		CE16CN4BB	\$49.75	4			220-240VAC 50-60Hz		
	CE15DN	CE15DNS3AB	\$56.25	3	1		110-120VAC 50-60Hz		
		CE15DNS3BB	\$56.25	3	1		220-240VAC 50-60Hz		
	CE15EN	CE15ENS3AB	\$63.00	3	1		110-120VAC 50-60Hz		
		CE15ENS3BB	\$63.00	3	1		220-240VAC 50-60Hz		
	CE15FN	CE15FNS3AB	\$71.50	3	1		110-120VAC 50-60Hz		
		CE15FNS3BB	\$71.50	3	1		220-240VAC 50-60Hz		

Note: Holding circuit contact(s) supplied standard: a N.O. auxiliary contact block is mounted on the right-hand side. (On Sizes A-C, contact occupies fourth power pole position-no increase in width.)

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